

CLAIMS

We claim:

- 5 1) A method for treating a mammal suffering from
choroidal neovascularization, comprising
administering to said patient an amount of a
photoactive compound sufficient to permit an
effective amount to localize in the affected
10 target ocular tissue, then irradiating said
tissue with light emitted from a laser at a
wavelength sufficient to permit absorption by
said photoactive compound; wherein said patient
is also administered an amount of an
15 antiangiogenic compound sufficient to inhibit
recurrence of neovascularization following said
irradiation.
- 20 2) The method of claim 1 wherein the antiangiogenic
compound is selected from the group consisting of
tyrosine kinase inhibitors and PEDF.
- 25 3) The method of claim 1 wherein said antiangiogenic
compound is administered at a time sufficient to
permit localization within ocular tissue prior to
said irradiation.
- 30 4) The method of claim 1 wherein said antiangiogenic
compound is administered intravenously.

- 5) The method of claim 1 wherein said antiangiogenic compound is administered through intraocular injection.
- 5 6) The method of claim 5 wherein said antiangiogenic compound is administered by subretinal injection.
- 7) The method of claim 5 wherein said antiangiogenic compound is administered by intravitreal injection.
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- 8) The method of claim 2 wherein the antiangiogenic compound is PEDF.
- 15 9) The method of claim 8 wherein said antiangiogenic compound comprises a recombinant human PEDF.
- 10) The method of claim 2 wherein said PEDF comprises a continuous amino acid sequence corresponding to positions 44-121 of native human PEDF.
- 20
- 11) The method of claim 10 wherein said PEDF comprises a continuous amino acid sequence corresponding to positions 44-229 of native human PEDF.
- 25
- 12) The method of claim 11 wherein said PEDF comprises a continuous amino acid sequence corresponding to positions 44-267 of native human PEDF.
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- 13) The method of any one of the preceding claims wherein said antiangiogenic compound is administered in the form of a composition comprising a nucleic acid which comprises an open
5 reading frame encoding said agent and wherein said agent is expressed in ocular tissue.
- 14) The method of claim 13 wherein said composition comprises a viral coat encapsulating said nucleic
10 acid.
- 15) The composition of claim 13 wherein said composition comprises a liposomal formulation.
- 15 16) A method of protecting ocular neural tissue from damage caused by photodynamic therapy (PDT) comprising delivering to a patient's ocular neural tissue an amount of a neuroprotectant compound effective to protect a plurality of
20 ocular neurons from cell death as compared to ocular neuron cell death observed in the absence of the administration of said neuroprotectant.
- 17) The method of claim 16 wherein said
25 neuroprotectant compound is selected from the group consisting of NGF, PEDF, CNTF, BDNF, brimonidine and memantine.
- 18) The method of claim 16 wherein said
30 neuroprotectant compound is administered at a time sufficiently before said PDT treatment to

permit localization within ocular tissue prior to
said treatment.

- 19) The method of claim 16 wherein said
5 neuroprotectant compound is administered
intravenously.
- 20) The method of claim 16 wherein said
10 neuroprotectant compound is administered through
intraocular injection.
- 21) The method of claim 14 wherein said
15 neuroprotectant compound is administered by
subretinal injection.
- 22) The method of claim 14 wherein said
neuroprotectant compound is administered by
intravitreal injection.
- 20 23) The method of any one of claim 17 wherein said
neuroprotectant compound comprises a recombinant
human polypeptide.
- 24) The method of claim 23 wherein said
25 neuroprotectant compound comprises a continuous
amino acid sequence corresponding to positions
44-121 of native human PEDF.
- 25) The method of claim 24 wherein said PEDF
30 comprises a continuous amino acid sequence

corresponding to positions 44-229 of native human PEDF.

- 26) The method of claim 25 wherein said PEDF
5 comprises a continuous amino acid sequence
corresponding to positions 44-267 of native human
PEDF.
- 27) The method of any one of claims 23 or 24 wherein
10 said neuroprotective agent is a polypeptide and
is administered in the form of a composition
comprising a nucleic acid which comprises an open
reading frame encoding said agent and wherein
said agent is expressed in ocular tissue.
- 15 28) The method of claim 27 wherein said composition
comprises a viral coat encapsulating said nucleic
acid.
- 20 29) The method of claim 27 wherein said composition
comprises a liposomal formulation.
- 30) The method of claim 16 wherein said composition
25 also comprises an therapeutically effective
amount of a antiangiogenic compound.
- 31) The method of claim 30 wherein said
neuroprotective compound and said antiangiogenic
compound are the same compound.

- 32) The method of claim 31 wherein said compound is PEDF.
- 5 33) The method of claim 1 wherein said composition also comprises an therapeutically effective amount of a neuroprotective compound.
- 10 34) The method of claim 33 wherein said neuroprotective compound and said antiangiogenic compound are the same compound.
- 35) The method of claim 34 wherein said compound is PEDF.
- 15 36) The method of claim 34 wherein said neuroprotective compound is selected from the group consisting of brimonidine and memantine.
- 20 37) The method of claim 36 wherein said neuroprotective compound is brimonidine.
- 38) The method of claim 36 wherein said neuroprotective compound is memantine.